

Wake County Natural Areas Inventory

YATES MILLPOND

Site Number: 31

Size: about 155 acres

Site Significance: State

Quadrangle: Lake Wheeler

Ownership: N.C. State University, Wake County, multiple private

SIGNIFICANT FEATURES: The State Endangered Carolina least trillium (*Trillium pusillum* var. *pusillum*) is found in a large population along the creek upstream from the Yates Millpond. There is a small series of steep north-facing bluffs, approximately 60 feet high, on the south side of Steep Hill Creek, that supports a rich mesic plant community with some species that are more typical of mountain environments. This area is heavily used for educational and research purposes by North Carolina State University.

LANDSCAPE RELATIONSHIPS: The Swift Creek Wildlife Habitat lies 2 to 2-1/2-miles to the south. There is a forested buffer along the creek both upstream and downstream, creating a small corridor to the Swift Creek Wildlife Habitat. Lake Raleigh Hardwood Forest and Lake Johnson Nature Park are roughly 3 miles to the north, but in a separate drainage (Walnut Creek).

SITE DESCRIPTION: This site lies west of Lake Wheeler Road (SR 1371), just north and northwest of the junction of Yates Mill Pond Road (SR 1381) and Penny Road (SR 1379). Yates Millpond is a 20-acre impoundment created by the damming of Steep Hill Creek in 1750. The dam was destroyed by Hurricane Fran in 1996, but was reconstructed in 2000. North Carolina State University owns the pond and 75 acres around it, and uses it as a Biological Field Laboratory. The pond is surrounded by hardwood and mixed pine-hardwood forests, which vary from the mesic forests at pond level to a more xeric community on the ridge to the west of the lake. The area at the north end of the pond and along the floodplain of the creek supports a more open, alluvial forest, with several beaver ponds. In this area, the State Endangered Carolina least trillium (*Trillium pusillum* var. *pusillum*) is present. This plant was discovered here several decades ago, but it had been feared destroyed by beaver ponds. However, as many as 2,000 plants were found in 2001 by N.C. State University botanists (Jon Stucky and Donna Wright). Thus, the site significance has been elevated greatly, from County up to State significance, as this population is one of the largest in the state.

Another notable plant, the Significantly Rare water purslane (*Didiplis diandra*), was reported from Yates Millpond in 1943. This aquatic plant has not been reported here or anywhere else in the county since that date and remains a poorly known species in North Carolina, with only three known extant populations (according to the NC NHP).

The north-facing slopes above the creek become higher as they progress westward, and become a series of steep 60-foot bluffs. The bluffs and the small bottomland support a rich plant community, with several species that are more typical in mountain forests.